

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-6. (Canceled)

1 7. (Original): A laser driver for producing the waveform of a driving signal,
2 which is used to drive a laser diode, according to a record data signal that represents record data
3 to be recorded on a recording medium, and a recording clock, comprising:
4 a recording clock inverter configured to invert a phase of a received recording
5 clock; and
6 a phase error detector configured to detect a phase error between a strobing clock
7 used to strobe the record data signal and the record data signal;
8 wherein when a phase difference between an edge of the record data signal and a
9 strobing edge of the strobing clock becomes equal to or smaller than a predetermined value, said
10 recording clock inverter inverts the recording clock.

1 8. (Original): A laser driver according to claim 7, wherein when the phase of
2 the recording clock is inverted, a shift value representing the magnitude of a shift by which the
3 timing of the edge of a record pulse is shifted equal to about a half of the cycle of the recording
4 clock is added to or subtracted from a control value based on which the timing of the edge of the
5 record pulse is controlled.

1 9. (Original): An optical disk system including the laser driver according to
2 claim 7, further comprising a sample-and-hold circuit configured to sample and hold a waveform
3 of a signal to be recorded on a recording medium or a waveform of a signal to be regenerated
4 from a recording medium; and wherein a control signal, based on which a phase of a recording
5 clock or a strobing clock is changed by substantially 180°, is used to substantially cause a 180°
6 change to the sampling timing at which said sample-and-hold circuit samples a waveform.

11 and 10. (Canceled)

1 12. (Original): A laser driver for producing the waveform of a driving signal,
2 which is used to drive a laser diode, according to a record data signal that represents record data
3 to be recorded on a recording medium, and a recording clock, comprising:

4 a variable delay circuit configured to vary a phase of the record data signal or the
5 recording clock; and

6 a mark/space verification circuit configured to verify, according to the recording
7 clock, whether the record data represented by the record data signal is a mark or space;

8 wherein when said mark/space verification circuit detects a mark or space whose
9 length is equal to or smaller than a predetermined length, a delay to the phase of the record data
10 signal or the recording clock to be produced by said variable delay circuit is varied.

1 13. (Original): A laser driver according to claim 12, further comprising a
2 delay controller configured to use a group of clocks to strobe the record data signal; wherein said
3 mark/space verification circuit is configured to use an internal clock synchronous with the
4 recording clock to strobe the record data signal; and wherein said delay controller is configured
5 to vary the magnitude of the delay to be produced by the variable delay circuit based on results
6 of strobing the group of clocks, the group of clocks including a plurality of clocks that are out of
7 phase with the internal clock by predetermined magnitudes.

1 14. (Original): A laser driver for producing the waveform of a driving signal,
2 which is used to drive a laser diode, according to a record data signal that represents record data
3 to be recorded on a recording medium, and a recording clock, comprising:

4 a phase-locked loop configured to produce an internal clock synchronous with the
5 recording clock and a group of clocks including a plurality of clocks that are out of phase with
6 the internal clock by predetermined magnitudes;

7 a write strategy controller configured to control a timing of an edge of a write
8 strategy by utilizing the timings of the edges of the group of clocks; and

9 a selector configured to select a strobing clock, which is used to strobe a received
10 record data signal, from the group of clocks;

11 wherein said selector is configured to select a strobing clock, which is used to
12 produce a write strategy comprising a recording waveform from clocks, which are used for
13 strobing, according to results of strobing the record data signal using the clocks included in the
14 group of clocks so as to maximize a phase difference between the edge of the record data signal
15 and the strobing edge of the strobing clock.

1 15. (Original): A laser driver according to claim 14, wherein when a strobing
2 clock is selected from the group of clocks, the phase of a reference clock serving as a reference
3 of a control value based on which the timing of the edge of a record pulse is controlled is agreed
4 with the phase of the strobing clock.

1 16. (Original): An optical disk system including the laser driver according to
2 claim 14, further comprising a sample-and-hold circuit configured to sample and hold a
3 waveform of a signal to be recorded on a recording medium or a waveform of a signal to be
4 regenerated from a recording medium; and wherein when clocks from which a strobing clock is
5 to be selected are changed, the sample-and-hold timing is changed so that the timing of sampling
6 the waveform of a signal to be recorded on a recording medium included in said optical disk
7 system or the waveform of a signal to be regenerated from the recording medium during sample-
8 and-hold will agree with the timing of the edge of the strobing clock.

17-24. (Canceled)